



**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)
)
Amendment of the Commission’s)
Rules with Regard to Commercial) GN Docket No. 12-354
Operations in the 3550-3650 MHz)
Band)
)

COMMENTS OF WI-FI ALLIANCE®

Wi-Fi Alliance respectfully submits its comments in the above-captioned Proceeding. Wi-Fi Alliance comprises more than 500 manufacturers, service providers and other companies that work in standards development and certification to enable the market for wireless LAN in unlicensed and lightly-licensed spectrum. We respectfully offer some comments on the issues contained in FCC 12-148 that directly impact our plans for this spectrum offering.

INTRODUCTION

On December 12, 2012 the Federal Communications Commission (“Commission”) issued a Notice of Proposed Rulemaking, under GN Docket No. 12-354, in which the Commission seeks comments related to spectrum sharing in the 3550-3650 MHz and the 3650-3700 MHz Band.

Wi-Fi Alliance applauds the Commission for finding novel ways to use the spectrum for commercial uses. We agree with the Commission that the spectrum should not remain unused if there are radio technologies that can make use of the spectrum while preserving the established regulatory framework since spectrum can be shared in frequency, time and space.

Wi-Fi Alliance supports the Commission's Notice of Proposed Rulemaking to create a new Citizens Broadband Service in the 3550-3650 MHz band (3.5 GHz Band). This will promote advances that enable more efficient use of radio spectrum.

We agree with the Commission, as it states in Paragraph 3, that increased use of small cell network deployments can multiply wireless capacity within existing spectrum resources.

Wi-Fi Alliance supports the establishment of a regulatory framework, as the Commission suggests in Paragraph 7, to permit the opportunistic use of cognitive devices in these bands. We also support the proposed broadening of the rulemaking to include spectrum in 3650 MHz to 3700 MHz Band, where similar Federal uses can enjoy the same protections that are described in this rulemaking.

**WI-FI ALLIANCE RECOMMENDS A RIGOROUS ANALYSIS OF
SEPARATIONS AROUND FIXED SATELLITE SERVICE**

At Paragraph 124-127 the Commission addresses the protection of the Fixed Satellite Service (FSS) below 3700 MHz. Wi-Fi Alliance agrees that this issue requires more rigorous analysis.

There are many factors that the Commission should consider in this rulemaking regarding sharing with FSS. Operation of small cells at powers lower than those considered in the 2010 WiMAX Forum analysis may lead to reduced sizes of incumbent use zones. The WiMAX industry experience in the 3650-3700 MHz band indicates that if FSS protection was by power control and emission masks and not by spatial separation, the number of deployments would be significantly greater than it is today. The Commission should also consider measures that the FSS industry can use to protect its own operations further. As the Commission notes in Paragraph 127 regarding receiver performance, the use of better performing LNAs/LNBs will enhance the ability to share the spectrum. In addition the FSS community has 20 years of experience with a fence of moderately good conducting material around an FSS receiver site (e. g. <http://www.panynj.gov/photo/real-estate/teleport-site-map.jpg>) showing that FSS receivers are protected from terrestrial interference. We propose requiring the FSS license holders take action to improve the immunity of their sites from interference.

**WI-FI ALLIANCE SUPPORTS CONTINUATION OF THE EXISTING PART 90 LIGHT
LICENSING RULES IN THE 3650-3700 MHZ BAND**

Paragraphs 77-82 of the NPRM address a “Supplemental Proposal to Include the 3650-3700 MHz Band.” Wi-Fi Alliance opposes the “Supplemental Proposal” as written to include the 3650-3700 MHz band in the proposed regulatory regime because the proposal would remove existing protections in the band under Part 90 against maritime radiolocation operations. However, Wi-Fi Alliance would support an alternative regime based on the

existing Part 90 rules whereby Wi-Fi® is protected from maritime radiolocation operation in the 3650-3700 MHz band. Wi-Fi Alliance supports a licensing regime of both Part 90 and Part 95 in the 3650 to 3700 MHz band.

CONCLUSION

Wi-Fi Alliance applauds the Commission's promotion of spectrum sharing, of more efficient use of spectrum through new cognitive radio technologies, of interference mitigation techniques and the Commission's intent to find novel ways to use the spectrum for commercial uses. We believe that the success of Wi-Fi can be extended to the 3550 MHz to 3700 MHz band. In this spectrum, Wi-Fi can provide the benefits as a small-cell technology.

Wi-Fi Alliance looks forward to working with the Commission to help realize the potential of a robust small cell market, using efficient sharing mechanisms to protect incumbents, including technologies that Wi-Fi Alliance has developed and is in the process of developing in the 2.4 GHz, 5 GHz, and TV bands.

Respectfully submitted

WI-FI ALLIANCE

A handwritten signature in black ink, appearing to read 'Edgar Figueroa', written over the printed name.

BY: Edgar Figueroa
President and CEO
10900-B Stonelake Blvd., Suite 126
Austin, Texas 78759
Phone: +1-512-498-9434
Email: efigueroa@wi-fi.org
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